



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0497; Project Identifier 2019-SW-043-AD; Amendment 39-21711; AD 2021-18-10]

RIN 2120-AA64

Airworthiness Directives; Bell Textron Canada Limited Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Bell Textron Canada Limited Model 429 helicopters. This AD was prompted by three reports of unexpected forces or uncommanded inputs to the directional (yaw) control system.

This AD requires revising the existing Rotorcraft Flight Manual (RFM) for your helicopter. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Bell Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4, Canada; telephone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; or at <https://www.bellcustomer.com>. You may view the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0497; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the Transport Canada AD, any comments received, and other information. The street address for Docket Operations is U.S. Department of

Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Mitch Soth, Flight Test Engineer, Southwest Section, Flight Test Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email mitch.soth@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Bell Textron Canada Limited Model 429 helicopters, serial numbers 57001 and subsequent. The NPRM published in the *Federal Register* on July 7, 2021 (86 FR 35692). In the NPRM, the FAA proposed to require revising the existing RFM for your helicopter by adding procedures in Section 2, Normal Procedures, under 2-4. INTERIOR AND PRESTART CHECK, 2-5. ENGINE START, and 2-8. TAKEOFF; Section 3, Emergency and Malfunction Procedures, under 3-9. AUTOMATIC FLIGHT CONTROL SYSTEM; and Section 4, Performance, under 4-2. POWER ASSURANCE CHECK. The owner/operator (pilot) may revise the existing RFM for your helicopter, and the owner/operator must enter compliance with the applicable paragraphs of the AD into the aircraft records in accordance with § 43.9(a)(1) through (4) and § 91.417(a)(2)(v). This is an exception to the FAA's standard maintenance regulations.

The NPRM was prompted by Transport Canada Emergency AD CF-2019-16, dated May 6, 2019 (Transport Canada AD CF-2019-16), issued by Transport Canada, which is the aviation authority for Canada to correct an unsafe condition for Bell Helicopter Textron Canada Limited (now Bell Textron Canada Limited) Model 429 helicopters, serial numbers 57001 and subsequent. Transport Canada advises of three reports of unexpected forces or uncommanded inputs to the directional (yaw) control system during ground operations. Investigation revealed that a yaw trim runaway can occur while the automatic pedal trim function is operating. This condition, if not addressed, could result in loss of control of the helicopter. Accordingly, Transport

Canada AD CF-2019-16 requires revising Bell RFM BHT-429-FM-1 by incorporating revision 14, dated April 18, 2019.

Discussion of Final Airworthiness Directive

Comments

The FAA received one comment from an individual who supported the NPRM without change.

Conclusion

These helicopters have been approved by the aviation authority of Canada and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with Canada, Transport Canada, its technical representative, has notified the FAA of the unsafe condition described in its AD. The FAA reviewed the relevant data, considered the comment received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters.

Related Service Information

The FAA reviewed Section 2 - Normal Procedures, Section 3 - Emergency and Malfunction Procedures, and Section 4 - Performance, of Bell RFM BHT-429-FM-1, Revision 14, dated April 18, 2019. This revision of the service information adds a procedure to reduce the risk of trim runaway during start sequence, cautions to reduce the risk of uncommanded control movement during engine start and takeoff and re-setting force trim detent instructions during engine start and takeoff, and an emergency procedure to assist flight crew to recognize trim runaway and response instructions.

Costs of Compliance

The FAA estimates that this AD affects 120 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Revising the existing RFM for your helicopter takes about 0.50 work-hour for an estimated cost of \$43 per helicopter and \$5,160 for the U.S. fleet.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-18-10 Bell Textron Canada Limited: Amendment 39-21711; Docket No. FAA-2021-0497; Project Identifier 2019-SW-043-AD.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bell Textron Canada Limited Model 429 helicopters, certificated in any category, serial numbers 57001 and subsequent.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6720, Tail Rotor Control System.

(e) Unsafe Condition

This AD was prompted by three reports of unexpected forces or uncommanded inputs to the directional (yaw) control system. The FAA is issuing this AD to prevent yaw trim runaway. The unsafe condition, if not addressed, could result in loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within 30 days after the effective date of this AD, revise the existing Rotorcraft Flight Manual for your helicopter as follows:

(i) In Section 2, Normal Procedures, under 2-4. INTERIOR AND PRESTART CHECK, add the following as item 25: “25. Depress the cyclic force TRIM REL button and collective FORCE REL button (4-axis only) to center actuators and extinguish any active out of detent indications.”

(ii) In Section 2, Normal Procedures, under 2-5. ENGINE START and under 2-8. TAKEOFF, add the following above item 1: “CAUTION: WHEN MANIPULATING FLIGHT CONTROLS WITH FORCE TRIM SELECTED ON, DO NOT RELEASE AFFECTED FLIGHT CONTROL UNTIL THE OUT OF DETENT INDICATION EXTINGUISHES. THE FLIGHT CONTROLS MAY BE RESET BY DEPRESSING THE CYCLIC FORCE TRIM REL BUTTON AND COLLECTIVE FORCE REL BUTTON (4-AXIS ONLY) UNTIL THE OUT OF DETENT INDICATION EXTINGUISHES.”

(iii) In Section 3, Emergency and Malfunction Procedures, under 3-9. AUTOMATIC FLIGHT CONTROL SYSTEM, add the information in Figure 1 to paragraph (g)(1)(iii) of this AD as item 3-9-D:

3-9-D. TRIM RUNAWAY

- INDICATIONS:

Flight controls — Uncommanded movement.

Flight control forces — High in axis of uncommanded movement, normal in other axes.

Out of detent indication for affected axis

- PROCEDURE:

1. Cyclic force TRIM REL and/or collective FORCE REL button (4-axis only) — Depress until the out of detent indication extinguishes.

2. Flight controls — Do not release flight control if out of detent indication is present.

3. Force TRIM switch — OFF; check TRM OFF illuminates on PFD.

4. If IMC, land as soon as practical. If VMC, continue flight in SCAS.

Figure 1 to paragraph (g)(1)(iii)

(iv) In Section 4, Performance, under 4-2. POWER ASSURANCE CHECK, add the following above the instructions for performing a power assurance check:

“CAUTION: WHEN MANIPULATING FLIGHT CONTROLS WITH FORCE TRIM SELECTED ON, DO NOT RELEASE AFFECTED FLIGHT CONTROL UNTIL THE OUT OF DETENT INDICATION EXTINGUISHES. THE FLIGHT CONTROLS MAY BE RESET BY DEPRESSING THE CYCLIC FORCE TRIM REL BUTTON AND COLLECTIVE FORCE REL BUTTON (4-AXIS ONLY) UNTIL THE OUT OF DETENT INDICATION EXTINGUISHES.”

(2) Using a document with information identical to the information in paragraph (g)(1) of this AD is acceptable for compliance with the actions required by paragraph (g)(1) of this AD.

(3) The actions required by paragraphs (g)(1) and (2) of this AD may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance

with § 43.9(a)(1) through (4) and § 91.417(a)(2)(v). The record must be maintained as required by § 91.417, § 121.380, or § 135.439.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (i)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Mitch Soth, Flight Test Engineer, Southwest Section, Flight Test Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email mitch.soth@faa.gov.

(2) The subject of this AD is addressed in Transport Canada Emergency AD CF-2019-16, dated May 6, 2019. You may view the Transport Canada AD on the internet at <https://www.regulations.gov> in Docket No. FAA-2021-0497.

(j) Material Incorporated by Reference

None.

Issued on August 26, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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